

Technical Data Sheet

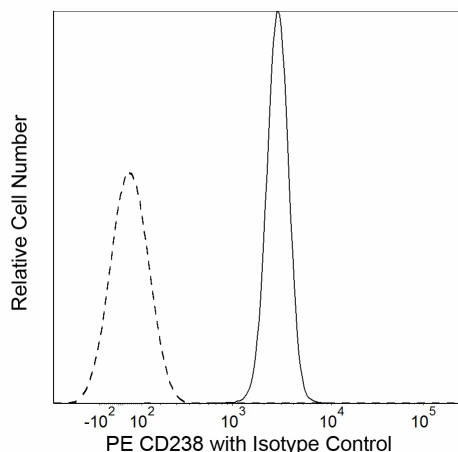
PE Mouse anti-Human CD238

Product Information

Material Number:	563122
Alternate Name:	KEL; KELL; Kell blood group, metallo-endoropeptidase; ECE3
Size:	50 tests
Vol. per Test:	5 µl
Clone:	BRIC 203
Immunogen:	Human erythrocytes
Isotype:	Mouse IgG1, κ
Reactivity:	QC Testing: Human
Storage Buffer:	Aqueous buffered solution containing BSA and ≤0.09% sodium azide.

Description

The BRIC 203 monoclonal antibody specifically binds to the Kell blood group antigen, Kp(a-b+) but not Kp(a-b-), also known as the Kell blood group metallo-endoropeptidase, KEL, ECE3 and CD238. CD238 is an approximately 115-kDa type II transmembrane glycoprotein that is encoded by the *KEL* gene. CD238 functions as a zinc endopeptidase that cleaves endothelin-3 into an active form which can function as a vasoconstrictor. CD238 is expressed on erythrocytes, human embryonic stem cell-derived endoderm and on cells from various other tissues, including testis, heart, brain and skeletal muscle. Decreased expression of CD238 is associated with the McLeod phenotype as a consequence of losing XK protein expression. Kell antigen expression can play an important role during blood transfusions and also specific autoimmune diseases related to Kell antigen recognition. During development the BRIC 203 monoclonal antibody was found to detect the CD238 antigen by flow cytometric analysis of human erythrocytes. It reportedly works in immunoprecipitation and agglutination assays.



Flow cytometric analysis of CD238 expression on human erythrocytes. Human erythrocytes were stained with the PE Mouse Anti-Human CD238 antibody (Cat. No. 563122; solid line histogram) or with PE Mouse IgG1, κ Isotype Control (Cat. No. 554680; dashed line histogram). The fluorescence histograms were derived from events with the forward and side light-scatter characteristics of erythrocytes. Flow cytometry was performed using a BD FACSCanto™ II Flow Cytometer System.

Preparation and Storage

Store undiluted at 4°C and protected from prolonged exposure to light. Do not freeze.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

The antibody was conjugated with R-PE under optimum conditions, and unconjugated antibody and free PE were removed.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
554656	Stain Buffer (FBS)	500 ml	(none)
554680	PE Mouse IgG1, κ Isotype Control	0.1 mg	MOPC-21

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Product Notices

1. This reagent has been pre-diluted for use at the recommended Volume per Test. We typically use 1×10^6 cells in a 100- μ l experimental sample (a test).
2. An isotype control should be used at the same concentration as the antibody of interest.
3. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
5. For fluorochrome spectra and suitable instrument settings, please refer to our Multicolor Flow Cytometry web page at www.bdbiosciences.com/colors.
6. Please refer to www.bdbiosciences.com/pharming/protocols for technical protocols.

References

Parsons SF, Gardner B, Anstee DJ. Monoclonal antibodies against Kell glycoprotein: serology, immunochemistry and quantification of antigen sites. *Transfus Med.* 1993; 3(2):137-142. (Immunogen)
Wang P, Rodriguez RT, Wang J, Ghodasara A, Kim SK. Targeting SOX17 in Human Embryonic Stem Cells Creates Unique Strategies for Isolating and Analyzing Developing Endoderm. *Cell Stem Cell.* 2011; 8:335-346. (Biology)

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